REMARKS

A total of 52 claims remain in the present application. The foregoing amendments are presented in response to the Office Action mailed July 27, 2004, wherefore reconsideration of this application is requested.

By way of the above-noted amendments, claims 1, 19 and 39 have been amended to relocate limitations of the hyperconcatenated data streams into the body of each claim. Claim 52 has been amended to relocate a limitation of the high bandwidth signal into the body of the claim. In each case, the revisions has been effected in order to ensure that the involved limitations are given patentable weight. No change in the scope of the claims is intended, and no new subject matter has been introduced.

Referring now to the text of the Office Action:

- claims 1-51 stand objected to under 35 U.S.C. § 112 as failing to comply with the written description requirement;
- claims 1, 2, 4, 6, 7, 16-23, 25, 27, 28, 36-43 and 52 stand rejected under 35 U.S.C. § 102(b), as being unpatentable over the teaching of United States Patent No. 5,257,261 (Parruck et al);
- claims 5, 8, 9, 26, 29, 30 and 44 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over the teaching of United States Patent No. 5, 257,261 (Parruck et al);
- claims 3 and 34 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over the teaching of United States Patent No. 5, 257,261 (Parruck et al) in view of United States Patent No. 6,160, 819 (Partridge et al.) and
- claims 10-15, 31-35 and 45-51 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As an initial matter, applicant appreciates the Examiner's indication of allowable subject matter in claims 10-15, 31-35 and 45-51. The Examiners claims rejections are believed to be traversed by the above-noted claim amendments, and further in view of the following discussion.

Response to Arguments

At paragraph 2 of the Detailed Action, the Examiner asserts that, in the Response filed May 20, 2004, Applicant amended claims 1, 19 and 39 to recite that:

> " (1) the first and second hyperconcatenated data streams having a variable user-selected concatenation, ... (2) the user selection is provided by the data streams comprising respective portions of an input signal."

This interpretation can not be supported by a fair reading of the amendments effected in Applicant's response filed May 20, 2004. In particular, the in the subject response, Applicant amended claims 1 to insert the phrase:

> "the first and second hyper-concatenated data streams compris[e] respective portions of an input signal having a variable user-selected concatenation".

Closely similar phrases were introduced into claims 19 and 39. This phrase unambiguously defines two limitations, namely: (i) the first and second hyper-concatenated data streams comprise respective portions of an input signal; and (ii) the input signal has a variable user-selected concatenation. This first limitation is a simple affirmation that the hyper-concatenated data streams are formed by dividing up the input signal. The second limitation states that the end user controls the concatenation scheme of the signal traffic being transmitted through the OP-N connection. Neither or these limitations read onto the Examiner's imputed limitations, and it is not clear to the Applicant how the Examiner arrived at his conclusions, based on the wording of Applicant's amendment.

If the Examiner continues to feel that his interpretation is valid, then further explanation thereof would be appreciated, so that the Applicant may understand the Examiner's reasoning on this point.

Rejections under 35 U.S.C. § 112

At paragraph 4 of the Detailed action, the Examiner asserts that claims 1-51 fail to comply with the written description requirement, on the basis that the specification does not support "the limitations of user-selection being provided by the data streams comprising respective portions of an input signal".

However, as noted above, claims 1-51 contain no such limitation. In fact, claims 1, 19 and 39 (as amended May 20, 2004) define that (i) the first and second hyper-concatenated data streams comprise respective portions of an input signal; and (ii) the input signal has a variable user-selected concatenation. Both of these elements are clearly and unambiguously supported by the originally filed specification, as was discussed at length in Applicant's response dated May 20, 2004.

Accordingly, it is respectfully submitted that the Examiner's rejection of claims 1-51 under 35 U.S.C. § 112 is improper, and should be withdrawn.

Rejections under 35 U.S.C. § 102

As argued in by applicant in previous responses, United States Patent No. 5,257,261 (Parruck et al) does not teach or suggest a system or methods capable of aligning hyper-concatenated data streams.

United States Patent No. 5,257,261 (Parruck et al.) teaches a system for concatenating a plurality of lower level SONET signals into a higher level SONET signal. Thus, in the example embodiment described by Parruck et al., a set of four parallel STS-3 signals are concatenated into a single STS-12c signal. As described by Parruck et al. this functionality permits a high level SONET signal (i.e. the STS-12c) to be inverse multiplexed into four lower level (STS-3) signals, which can then be transmitted through parallel channels of an optical communications network. At a receiving node, the inbound STS-3 signals can then be recombined to recover the original STS-12c signal. As is well known in the art, and described by Parruck et al., this technique enables high level SONET signalling to be transported across lower-speed legacy network infrastructure. (See col. 1, lines 14-62).

As noted by the Examiner, Parruck et al teach that any number of lower level SONET signals may be concatenated to form a higher rate signal in this manner. Parruck et al also teach that the lower level SONET signals are not restricted to STS-3 or STS3c signals. However, in all cases, the concatenation scheme of all of the lower rate signals must necessarily be identical, and this concatenation scheme must be known in advance. As such, Parruck et al do not teach or

suggest a system or methods capable of aligning hyper-concatenated data streams at all, but rather is restricted to conventional inverse multiplexed signals.

More particularly, Parruck et al do not teach or suggest the limitation "wherein the first and second hyper-concatenated data streams comprise respective portions of an input signal having a variable user-selected concatenation" as defined in independent claims 1, 19 and 39. Accordingly, it is submitted that the present invention is clearly distinguishable over the teaching of United States Patent No. 5,257,261 (Parruck et al.).

Rejections under 35 U.S.C. § 103

As pointed out above, United States Patent No. 5,257,261 (Parruck et al.) does not teach all of the limitations of independent claims 1, 19 and 39. The Examiner has admitted that Parruck et al. does not teach all of the limitations of independent claim 52. In particular, Parruck et al do not teach or suggest the limitations that: (i) the first and second hyper-concatenated data streams comprise respective portions of an input signal; and (ii) the input signal has a variable user-selected concatenation.

The remaining references do not supply the missing teaching. United States Patent No. 6,160,819 (Partridge et al.) teaches an inverse multiplexing scheme in which a high-level signal (e.g. an OC-192) is inverse multiplexed across a set of lower rate signals (e.g. four OC-48 signals) using a byte-by-byte stripping technique. In order to be conveyed across conventional SONET infrastructure, however, each lower rate signal must conform to the SONET standard. Since the formatting and concatenation of the original high-level signal is lost (due to the byte-wise stripping of the signal across the multiple lower rate signals, each lower rate signal must strictly conform to the SONET standard. Furthermore, recovery of the high-level signal at a receiving end requires advance knowledge of the concatenation of at least the low level signals. Accordingly, Partridge et al cannot accommodate the inherently arbitrary (and unknown) concatenation of hyper-concatenated data streams.

Accordingly, it is submitted that the present invention is clearly distinguishable over the teaching of the cited references, taken alone or in any combination.

Disqualification of Prior Art for purposes of 35 U.S.C. § 103

At page 3 of the Detailed Action, the Examiner asserts that

> "... if applicant amends the claims to include the above-mentioned limitations within the body of the claims, applicant is reminded that the first limitation regarding user-selection is disclosed in the background of the applicant's invention as admitted prior art. Therefore, such an amendment would result in the claims being rejected under 35 USC § 103(a)..."

However, the Examiner's attention is respectfully directed to pages 1 and 2 of the present specification, wherein the limitations that the first and second hyper-concatenated data streams comprise respective portions of an input signal; and the input signal has a variable user-selected concatenation are first discussed. The "admitted prior art" to which the Examiner refers is, in fact, Applicant's own United States Patent Application No. 09/539,707 filed on March 31, 2000, and entitled METHOD AND SYSTEM FOR ESTABLISHING CONTENT-FLEXIBLE CONNECTIONS. This application is disqualified as prior art under 35 USC § 103(c), on the basis that both United States Patent Application No. 09/539,707 were commonly owned at the time the present invention was made. Common ownership is established by:

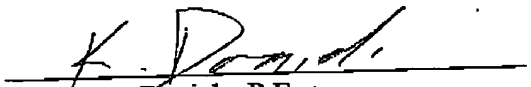
- United States Patent Application No. 09/539,707 is owned by Nortel Networks Limited by virtue of an assignment in favor of Nortel Networks Corporation recorded on March 31, 2000 at Reel/Frame 010680/0668, and a Universal Change of Name from Nortel Networks Corporation to Nortel Networks Limited recorded on August 30, 2000 at Reel/Frame 011195/0706;

- The present application is owned by Nortel Networks Limited by virtue of an assignment in favor of Nortel Networks Corporation recorded on April 19, 2000 at Reel/Frame: 010737/0983 and the Universal Change of Name from Nortel Networks Corporation to Nortel Networks Limited recorded on August 30, 2000 at Reel/Frame 011195/0706;

In light of the foregoing, it is respectfully submitted that the presently claimed invention is clearly distinguishable over the teaching of the cited references, taken alone or in any combination. Thus it is believed that the present application is in condition for allowance, and early action in that respect is courteously solicited.

If any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this response, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 19-5113.

Respectfully submitted,



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